



LRC Indoor Testing and Research  
 140 Iowa Lane, Suite 102  
 Cary, NC 27511  
 (919) 342-4936

**Certificate of Laboratory Analysis**  
**Non-Viable Spore Trap Analysis**

Dare County Schools  
 Ian Adams  
 3020 South Wrightsville Avenue  
 Nags Heads, NC

**Project #:** 24-3289  
**Project Location:** Cape Hatteras Secondary School

**Project Type:** IAQ  
**PO/Claim #:** -

**Table 1: Non-Viable Air Samples**

Date Collected:	11/16/24	11/16/24	11/16/24	11/16/24	11/16/24
	1	2	3	4	5
Spore Identification	Hall at Administration	Cafeteria	Hall at CR 302	Cr 307	Hall at CR318
<i>Cladosporium</i>	53	27	53	27	67
Ascospores	13	-	-	27	-
Basidiospores <sup>2</sup>	67	13	13	13	40
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	40	-	-	27	13
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	27	-	-	13	53
Hyphal Elements <sup>3</sup>	27	-	-	-	27
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	13	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>227</b>	<b>40</b>	<b>67</b>	<b>120</b>	<b>200</b>
<b>Particulate Level</b>	<b>low-moderate</b>	<b>low</b>	<b>low</b>	<b>low</b>	<b>low-moderate</b>
<b>Date Analyzed:</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>

Analyzed by: Cathy A. Richmond, B.S.

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**Project Location:** Cape Hatteras Secondary School

**Project Type:** IAQ  
**PO/Claim #:** -

**Table 1: Non-Viable Air Samples**

Date Collected:	11/16/24	11/16/24	11/16/24	11/16/24	11/16/24
	6	7	8	9	10
Spore Identification	CR 320	Hall at Media Center	Media Center	Hall at 153	Gym
<i>Cladosporium</i>	-	53	27	40	27
Ascospores	-	40	-	13	13
Basidiospores <sup>2</sup>	-	27	40	27	-
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	27	13	-	27	13
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	13	13	13	-	-
Hyphal Elements <sup>3</sup>	-	-	-	-	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>40</b>	<b>147</b>	<b>80</b>	<b>107</b>	<b>53</b>
<b>Particulate Level</b>	<b>low</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>low</b>	<b>low</b>
<b>Date Analyzed:</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>

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**Table 1: Non-Viable Air Samples**

Date Collected:	11/16/24	11/16/24	11/16/24	11/16/24	11/16/24
	11	12	13	14	15
Spore Identification	Aux. Gym	Hall at 149	CR 317	Music Room	Auditorium
<i>Cladosporium</i>	27	27	13	53	-
Ascospores	27	-	27	-	13
Basidiospores <sup>2</sup>	-	-	-	-	-
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	-	-	-	13	-
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	-	13	-	13	-
Hyphal Elements <sup>3</sup>	-	13	13	-	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	13
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>53</b>	<b>53</b>	<b>53</b>	<b>80</b>	<b>27</b>
<b>Particulate Level</b>	<b>low</b>	<b>low</b>	<b>low</b>	<b>low-moderate</b>	<b>low</b>
<b>Date Analyzed:</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>

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**Table 1: Non-Viable Air Samples**

Date Collected:	11/16/24	11/16/24	11/16/24	11/16/24	11/16/24
	16	17	18	19	20
Spore Identification	Hall at CR 205	CR210	Hall at 352	Hall at 359	CR 360
<i>Cladosporium</i>	40	27	27	-	27
Ascospores	13	-	-	27	-
Basidiospores <sup>2</sup>	27	80	13	-	-
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	-	27	13	-	-
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	13	13	-	-	13
Hyphal Elements <sup>3</sup>	-	-	-	-	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	13	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>93</b>	<b>147</b>	<b>53</b>	<b>40</b>	<b>40</b>
<b>Particulate Level</b>	<b>low</b>	<b>low-moderate</b>	<b>low</b>	<b>low-moderate</b>	<b>low</b>
<b>Date Analyzed:</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>

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**Table 1: Non-Viable Air Samples**

Date Collected:	11/16/24	11/16/24	11/16/24	11/16/24
	21	22	23	24
Spore Identification	CR 364	Auditorium Dressing Area	Hall at Weight Room	Outdoor Air
<i>Cladosporium</i>	53	53	53	853
Ascospores	-	27	27	7200
Basidiospores <sup>2</sup>	13	13	80	480
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	-	13	27	320
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	-	13	13	213
Hyphal Elements <sup>3</sup>	13	40	13	53
<i>Alternaria</i>	-	-	-	-
<i>Curvularia</i>	-	27	-	53
<i>Epicoccum</i>	-	-	-	-
<i>Cercospora</i>	-	-	-	-
<i>Arthrinium</i>	-	-	-	-
Clear Brown	-	-	-	-
Colorless	-	-	-	-
Trichocladium	-	-	-	-
Unidentified	-	-	-	-
<i>Ulocladium</i>	-	-	-	-
Torula	-	-	-	-
Pithomyces	-	-	-	-
Rust <sup>5</sup>	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	13	-	-
<i>Tetraploa</i>	-	-	-	-
<i>Chaetomium</i>	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-
	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>80</b>	<b>200</b>	<b>213</b>	<b>9173</b>
<b>Particulate Level</b>	<b>low</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>low-moderate</b>
<b>Date Analyzed:</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>	<b>11/21/24</b>

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**Project #:** 24-3289  
**Project Location:** Cape Hatteras Secondary School  
  
**Project Type:** - IAQ  
**PO/Claim #:** -

**Sample Number:** 1  
**Sample Location:** Hall at Administration  
**Date Collected:** 11/16/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/21/24

**Volume (L):** 75  
**Percentage of Slide Read:** 100.0%  
**Detection Limit:** 13.33  
**Particulate Level:** low-moderate  
**Notes:**

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	4	53	spores/m <sup>3</sup>	24%
Ascospores	1	13	spores/m <sup>3</sup>	6%
Basidiospores	5	67	spores/m <sup>3</sup>	29%
Smuts, <i>Periconia</i> , Myxomycetes	3	40	spores/m <sup>3</sup>	18%
<i>Penicillium/Aspergillus</i> Group	2	27	spores/m <sup>3</sup>	12%
Hyphal Elements	2	27	spores/m <sup>3</sup>	12%
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>17</b>	<b>227</b>	<b>spores/m<sup>3</sup></b>	

Analyzed by: Cathy A. Richmond, B.S.





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### Non-Viable Spore Trap Analysis

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 -

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**Project Type:** - IAQ  
**PO/Claim #:** -

<b>Sample Number:</b>	3	<b>Volume (L):</b>	75
<b>Sample Location:</b>	Hall at CR 302	<b>Percentage of Slide Read:</b>	100.0%
<b>Date Collected:</b>	11/16/24	<b>Detection Limit:</b>	13.33
<b>Test Requested:</b>	Non-viable spore trap analysis	<b>Particulate Level:</b>	low
<b>Date Analyzed:</b>	11/21/24	<b>Notes:</b>	-

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	4	53	spores/m <sup>3</sup>	80%
Ascospores		-	spores/m <sup>3</sup>	-
Basidiospores	1	13	spores/m <sup>3</sup>	20%
Smuts, <i>Periconia</i> , Myxomycetes		-	spores/m <sup>3</sup>	-
<i>Penicillium/Aspergillus</i> Group		-	spores/m <sup>3</sup>	-
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>5</b>	<b>67</b>	<b>spores/m<sup>3</sup></b>	

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 -

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**Project Type:** IAQ  
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<b>Sample Number:</b>	4	<b>Volume (L):</b>	75
<b>Sample Location:</b>	Cr 307	<b>Percentage of Slide Read:</b>	100.0%
<b>Date Collected:</b>	11/16/24	<b>Detection Limit:</b>	13.33
<b>Test Requested:</b>	Non-viable spore trap analysis	<b>Particulate Level:</b>	low
<b>Date Analyzed:</b>	11/21/24	<b>Notes:</b>	-

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	2	27	spores/m <sup>3</sup>	22%
Ascospores	2	27	spores/m <sup>3</sup>	22%
Basidiospores	1	13	spores/m <sup>3</sup>	11%
Smuts, <i>Periconia</i> , Myxomycetes	2	27	spores/m <sup>3</sup>	22%
<i>Penicillium/Aspergillus</i> Group	1	13	spores/m <sup>3</sup>	11%
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>	1	13	spores/m <sup>3</sup>	11%
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>9</b>	<b>120</b>	<b>spores/m<sup>3</sup></b>	

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<b>Sample Number:</b>	6	<b>Volume (L):</b>	75
<b>Sample Location:</b>	CR 320	<b>Percentage of Slide Read:</b>	100.0%
<b>Date Collected:</b>	11/16/24	<b>Detection Limit:</b>	13.33
<b>Test Requested:</b>	Non-viable spore trap analysis	<b>Particulate Level:</b>	low
<b>Date Analyzed:</b>	11/21/24	<b>Notes:</b>	-

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>		-	spores/m <sup>3</sup>	-
Ascospores		-	spores/m <sup>3</sup>	-
Basidiospores		-	spores/m <sup>3</sup>	-
Smuts, <i>Periconia</i> , Myxomycetes	2	27	spores/m <sup>3</sup>	67%
<i>Penicillium/Aspergillus</i> Group	1	13	spores/m <sup>3</sup>	33%
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>3</b>	<b>40</b>	<b>spores/m<sup>3</sup></b>	

Analyzed by: Cathy A. Richmond, B.S.



## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

**Dare County Schools**  
**Ian Adams**  
**3020 South Wrightsville Avenue**  
**Nags Heads, NC**  
 -

**Project #:** 24-3289  
**Project Location:** Cape Hatteras Secondary School  
 -  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 7  
**Sample Location:** Hall at Media Center  
**Date Collected:** 11/16/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/21/24

**Volume (L):** 75  
**Percentage of Slide Read:** 100.0%  
**Detection Limit:** 13.33  
**Particulate Level:** low-moderate  
**Notes:** -

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	4	53	spores/m <sup>3</sup>	36%
Ascospores	3	40	spores/m <sup>3</sup>	27%
Basidiospores	2	27	spores/m <sup>3</sup>	18%
Smuts, <i>Periconia</i> , Myxomycetes	1	13	spores/m <sup>3</sup>	9%
<i>Penicillium/Aspergillus</i> Group	1	13	spores/m <sup>3</sup>	9%
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>11</b>	<b>147</b>	<b>spores/m<sup>3</sup></b>	

Analyzed by: Cathy A. Richmond, B.S.

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## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

**Dare County Schools**  
**Ian Adams**  
**3020 South Wrightsville Avenue**  
**Nags Heads, NC**  
 -

**Project #:** 24-3289  
**Project Location:** Cape Hatteras Secondary School  
  
**Project Type:** - IAQ  
**PO/Claim #:** -

<b>Sample Number:</b>	9	<b>Volume (L):</b>	75
<b>Sample Location:</b>	Hall at 153	<b>Percentage of Slide Read:</b>	100.0%
<b>Date Collected:</b>	11/16/24	<b>Detection Limit:</b>	13.33
<b>Test Requested:</b>	Non-viable spore trap analysis	<b>Particulate Level:</b>	low
<b>Date Analyzed:</b>	11/21/24	<b>Notes:</b>	-

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	3	40	spores/m <sup>3</sup>	38%
Ascospores	1	13	spores/m <sup>3</sup>	13%
Basidiospores	2	27	spores/m <sup>3</sup>	25%
Smuts, <i>Periconia</i> , Myxomycetes	2	27	spores/m <sup>3</sup>	25%
<i>Penicillium/Aspergillus</i> Group		-	spores/m <sup>3</sup>	-
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>8</b>	<b>107</b>	<b>spores/m<sup>3</sup></b>	

Analyzed by: Cathy A. Richmond, B.S.

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## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

Dare County Schools  
 Ian Adams  
 3020 South Wrightsville Avenue  
 Nags Heads, NC  
 -

**Project #:** 24-3289  
**Project Location:** Cape Hatteras Secondary School  
  
**Project Type:** -  
 IAQ  
**PO/Claim #:** -

**Sample Number:** 11  
**Sample Location:** Aux. Gym  
**Date Collected:** 11/16/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/21/24

**Volume (L):** 75  
**Percentage of Slide Read:** 100.0%  
**Detection Limit:** 13.33  
**Particulate Level:** low  
**Notes:**

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	2	27	spores/m <sup>3</sup>	50%
Ascospores	2	27	spores/m <sup>3</sup>	50%
Basidiospores		-	spores/m <sup>3</sup>	-
Smuts, <i>Periconia</i> , Myxomycetes		-	spores/m <sup>3</sup>	-
<i>Penicillium/Aspergillus</i> Group		-	spores/m <sup>3</sup>	-
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>4</b>	<b>53</b>	<b>spores/m<sup>3</sup></b>	

Analyzed by: Cathy A. Richmond, B.S.



















## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

Dare County Schools  
 Ian Adams  
 3020 South Wrightsville Avenue  
 Nags Heads, NC  
 -

**Project #:** 24-3289  
**Project Location:** Cape Hatteras Secondary School  
**Project Type:** - IAQ  
**PO/Claim #:** -

**Sample Number:** 20      **Volume (L):** 75  
**Sample Location:** CR 360      **Percentage of Slide Read:** 100.0%  
**Date Collected:** 11/16/24      **Detection Limit:** 13.33  
**Test Requested:** Non-viable spore trap analysis      **Particulate Level:** low  
**Date Analyzed:** 11/21/24      **Notes:**

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	2	27	spores/m <sup>3</sup>	67%
Ascospores		-	spores/m <sup>3</sup>	-
Basidiospores		-	spores/m <sup>3</sup>	-
Smuts, <i>Periconia</i> , Myxomycetes		-	spores/m <sup>3</sup>	-
<i>Penicillium/Aspergillus</i> Group	1	13	spores/m <sup>3</sup>	33%
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>3</b>	<b>40</b>	<b>spores/m<sup>3</sup></b>	

Analyzed by: Cathy A. Richmond, B.S.

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## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

**Dare County Schools**  
**Ian Adams**  
**3020 South Wrightsville Avenue**  
**Nags Heads, NC**  
 -

**Project #:** 24-3289  
**Project Location:** Cape Hatteras Secondary School  
  
**Project Type:** - IAQ  
**PO/Claim #:** -

<b>Sample Number:</b>	21	<b>Volume (L):</b>	75
<b>Sample Location:</b>	CR 364	<b>Percentage of Slide Read:</b>	100.0%
<b>Date Collected:</b>	11/16/24	<b>Detection Limit:</b>	13.33
<b>Test Requested:</b>	Non-viable spore trap analysis	<b>Particulate Level:</b>	low
<b>Date Analyzed:</b>	11/21/24	<b>Notes:</b>	-

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	4	53	spores/m <sup>3</sup>	67%
Ascospores		-	spores/m <sup>3</sup>	-
Basidiospores	1	13	spores/m <sup>3</sup>	17%
Smuts, <i>Periconia</i> , Myxomycetes		-	spores/m <sup>3</sup>	-
<i>Penicillium/Aspergillus</i> Group		-	spores/m <sup>3</sup>	-
Hyphal Elements	1	13	spores/m <sup>3</sup>	17%
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>6</b>	<b>80</b>	<b>spores/m<sup>3</sup></b>	

Analyzed by: Cathy A. Richmond, B.S.







## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

Dare County Schools  
 Ian Adams  
 3020 South Wrightsville Avenue  
 Nags Heads, NC  
 -

**Project #:** 24-3289  
**Project Location:** Cape Hatteras Secondary School  
  
**Project Type:** - IAQ  
**PO/Claim #:** -

**Sample Number:** 24  
**Sample Location:** Outdoor Air  
**Date Collected:** 11/16/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/21/24

**Volume (L):** 75  
**Percentage of Slide Read:** 25.0%  
**Detection Limit:** 53.33  
**Particulate Level:** low-moderate  
**Notes:**

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	16	853	spores/m <sup>3</sup>	9%
Ascospores	135	7200	spores/m <sup>3</sup>	78%
Basidiospores	9	480	spores/m <sup>3</sup>	5%
Smuts, <i>Periconia</i> , Myxomycetes	6	320	spores/m <sup>3</sup>	3%
<i>Penicillium/Aspergillus</i> Group	4	213	spores/m <sup>3</sup>	2%
Hyphal Elements	1	53	spores/m <sup>3</sup>	1%
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>	1	53	spores/m <sup>3</sup>	1%
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>172</b>	<b>9173</b>	<b>spores/m<sup>3</sup></b>	

Analyzed by: Cathy A. Richmond, B.S.



## Certificate of Laboratory Analysis

Project #: **24-3289**

### Report Information:

**DETECTION LIMITS (DL)** for samples are the minimum number of spores or colonies forming units that can be satisfactorily identified for each sample type.

**SPORE TRAP SAMPLES:** Calculations based on volume of air sampled & percentage of slide counted, i.e. DL = 1000 L / 75 L if 100% of the slide is counted.

**CODE 11:** Fungal content and/or particulate level on slide too heavy to identify and enumerate fungal content.

### Footnotes:

1. *Penicillium/Aspergillus* group spores are characterized by their small size, round to ovoid shape, being unicellular and usually colorless to lightly pigmented. There are numerous genera of fungi whose spore morphology is similar to that of the *Penicillium/Aspergillus* type. Several common examples would be *Acremonium*, *Paecilomyces*, and *Trichoderma*. Although the majority of spores placed in this group are *Penicillium*, *Aspergillus*, or a combination of both, these are not the only two possibilities.
2. Basidiospores are primarily transported indoors from outdoor sources and rarely grow indoors. A high basidiospore count indoors can be indicative of a wood decay problem or wet soil, and should be verified if and an outdoor source of the spores is not present.
3. Hyphae are the tubular filaments of fungi. Hyphae can fragment and become airborne much like spores and are potentially allergenic.
4. The Smut, *Periconia*, Myxomycete group is a group composed of three different types of organisms whose spores have similar morphologies. Smuts are plant pathogens, *Periconia* is a relatively uncommon mold indoors, and Myxomycetes are not fungi, but slime molds. Although these organisms do not typically proliferate indoors, their spores are potentially allergenic.
5. Rusts are plant pathogens. These fungi do not typically grow indoors unless an infected plant is present. Rust spores are potentially allergenic.

## Chain of Custody available on request

### Direct Microscopic Exam Reporting:

We use a 400x-600x magnification microscope.

Reporting Quantification Levels are as follows:

Reporting Level	Quantitative Description
Occasional	1-10 per square inch
Few	11-100 per square inch
Moderate	101-1000 per square inch
Numerous	More than 1,000 per square inch

### Submitted By Analyst:

**Cathy A. Richmond, BS**

11/21/2024